Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Revision of the Commission's	)	ET Docket No. 99-300
Rules to Ensure Compatibility	)	
With Enhanced 911 Emergency	)	
Calling Systems	)	

To: The Commission

COMMENTS OF NENA
IN RESPONSE TO INFORMATION REQUESTED
FOR PHASE II TESTING REQUIREMENTS

The National Emergency Number Association ("NENA") hereby submits the following comments regarding the Commission's request for information regarding the testing of Phase II Location Determining Systems.

NENA is the premier 9-1-1 organization in the nation and is solely devoted to 9-1-1. It represents over 6,000 professionals. NENA sets the 9-1-1 standards working with the Public Safety Answering Points ("PSAPs"), equipment vendors, and carriers throughout North America.

NENA supports and understands the need to create testing guidelines and appreciates the opportunity to respond in this regard. For purposes of clarity our

comments follow the sequence of the public notice.

Compliance Testing Issues

These guidelines should be revisited periodically by an industry oversight group with members of the PSAP community to assure that they are in reality providing accurate measurements utilizing a common set of metrics with useable results. This group should also be a point of reference for wireless carriers needing to establish the measurements to assure common practice.

Statistical Considerations

The requirement should be clear and easily understood to minimize confusion for the person assigned to implement the testing procedures and for those which will be reviewing the results. The procedure should not be specific to air interface or choice of location determining technology.

There should be a pre-tested exacting location to use as a reference. This exact location reference will be what the results would be based on. Without such a reference, it would be difficult to ascertain whether the error was attributable to the subject equipment or in the test equipment.

Outliers should be tabulated to ensure that this is not faulty test equipment.

Tests where inconsistent results indicate something other than faulty test equipment should be re-tested. Overall occurrence of results ascribed to faulty test equipment should be maintained to ensure that this is not statistically significant.

Precision to fractions of a meter is not needed given the standards. Rounding to the nearest meter would appear sufficient.

Choice of Measurement Locations

The tests should cover the entire advertised coverage area of the wireless service provider. The location should be ignored if the voice call cannot be completed.

The test locations should be picked in a random fashion. Measurement should be made in proportion to the carrier's current call distribution and not restricted to 9-1-1 calls. The Commission's intent was to provide service to all the carrier's subscribers. As such, the normal call distribution will reflect that group. The 9-1-1 distribution then current is not the same and is subject to shift as other unrelated factors change over time.

Choosing locations by their distance from individual base stations or towers appears to ignore the decision to go to a simple percentage of all calls. The same for "type of reception environment" and "vertical dimension." The latter appears unnecessary when there is no present z-axis requirement. Tests must conform to

conditions prevalent in the area and be responsible to predictable changes that will occur.

Measurement Techniques

Time is critical with emergency 9-1-1 calls. To that extent, many 9-1-1 systems have changed over to Signal System Seven (SS7) to minimize call set-up time. Location determining systems should not significantly increase this timing. Enhanced wireline 9-1-1 routes on caller location (ANI to ESN) and we need the same to occur with wireless callers. Location determining factors must be passed to the 9-1-1 tandem (selective router) in order to route the wireless caller to the proper PSAP without significantly delaying this process – otherwise callers will disconnect.

Wireless phones unable to deliver a location, regardless of choice of location technology, should route on cell site and sector.

Some proportion of measurements should be made with phones in motion. These measurements must reflect and mimic the reality of their use.

Tests should be made with all types of service in use. Clearly tests should be as uniform as possible. Creating differing standards for technologies are self-defeating except where the Commission has adopted a different standard. It would be of value to note the differing results for each technology and make it available to consumers as decision criteria. However, results should be combined

in the proportion that a carrier has in place or is likely to have in place at the time of implementation.

A STANDARD test method and a STANDARD method of recording and reporting test results should be developed up front and agreed upon by the carriers and the PSAPs. This method promotes comparability. If this is not done, we will have confusing and non-validating data.

NENA offers the foregoing suggestions for consideration.

Respectfully submitted,

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